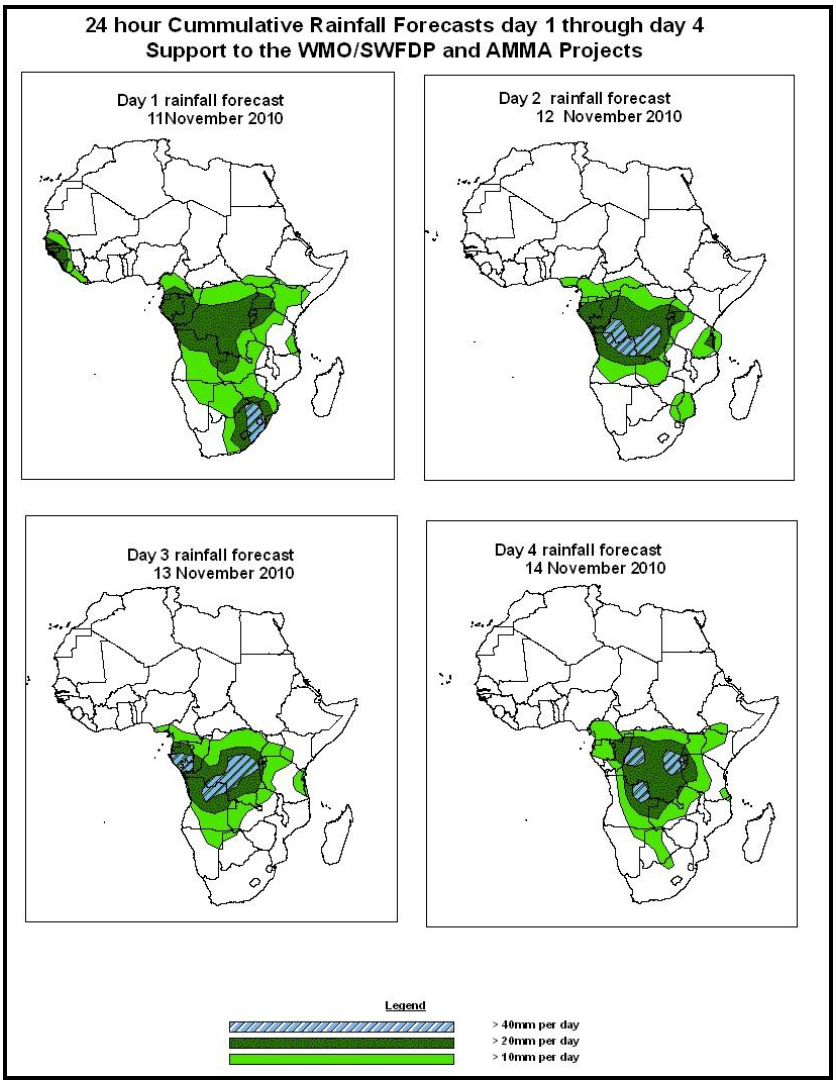
NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1.0. Rainfall Forecast: Valid, 06Z of 11 NOVEMBER – 06Z of 14 NOVEMBER 2010, (Issued at 14:00Z of 10 NOVEMBER 2010)

1.1. Twenty Four Hour Cumulative Rainfall Forecasts

The forecasts are expressed in terms of probability of precipitation (POP) exceeded based on the NCEP, UK Met Office and the ECMWF NWP outputs, the NCEP global ensemble forecasts system (GEFS) and expert assessment.



Summary

In the coming four days, there is an increased chance for rainfall to exceed 20mm per day over eastern parts DRC, CAB region and Southern Africa with chances of locally heavy rainfall over DRC, Angola, Gabon, Congo, Rwanda, Burundi, South Africa and Swaziland.

1.2. Models Comparison and Discussion-Valid from 00Z of 10 NOVEMBER 2010

A trough over Burkina Faso extending to Sudan across Niger and Chad is expected to deepen slightly in the next 48 to 72 hours. A cut off low over Botswana to eastern Mozambique across northeast Zimbabwe is expected to deepen from central pressure of 1009 to 1004 during the next 72hours. Also a Cut off low pressure system over Angola and Zambia is expected to deepen and move over north Botswana in the next 24 hours.

The seasonal low pressure system (Meridional component of the ITCZ) over DRC is expected to persist during the next 24 to 96 hours.

The southern hemisphere High pressure system (St. Helena) is at central pressure 1026hPa and expected to intensify to 1029 hPa in the next 48 hours. Towards the end of the forecast period St. Helena is expected to extend a ridge over the east coast of South Africa according to GFS and ECMWF models. On the other hand, Mascarene high pressure is expected to intensify slightly between in the next 24hours and then weaken beyond 48hours.

At 850hPa level, The GFS model is indicating a convergence line from Lake Victoria extending to central Angola across DRC. The convergence line is expected to move to northern Zambia in the next 48 hours. Another convergence line over Angola is extending to Botswana in the next 48 hours. In the next 72 hours the convergence line is expected to extend to Zambia. A weak convergence line over the coast of Tanzania is expected to persist during the next 24 to 72 hours.

At 700hPa level, a convergence line from north DRC to Gabon is expected weaken beyond the next 48 hours. Another convergence line along the coast of Mozambique extends to the east coast of South Africa during the next 24 hours. Another cyclonic convergence develops over North Angola in the next 48 hours.

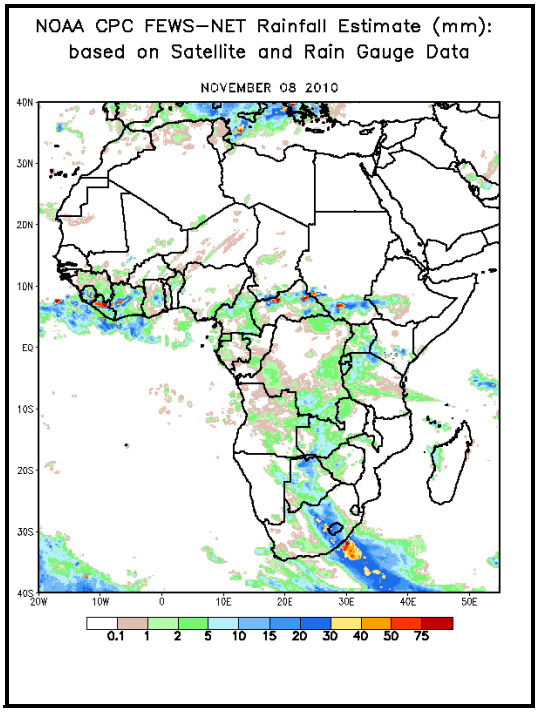
At 200hPa, zone of strong wind (>50Kts) associated with the Sub Tropical westerly Jet in the southern Hemisphere currently over South Africa is expected to move across the southern tip of South Africa in the next 72 hours.

In the coming four days, there is an increased chance for rainfall to exceed 20mm per day over eastern parts DRC, CAB region and Southern Africa with chances of locally heavy rainfall over DRC, Angola, Gabon, Congo, Rwanda, Burundi, South Africa and Swaziland.

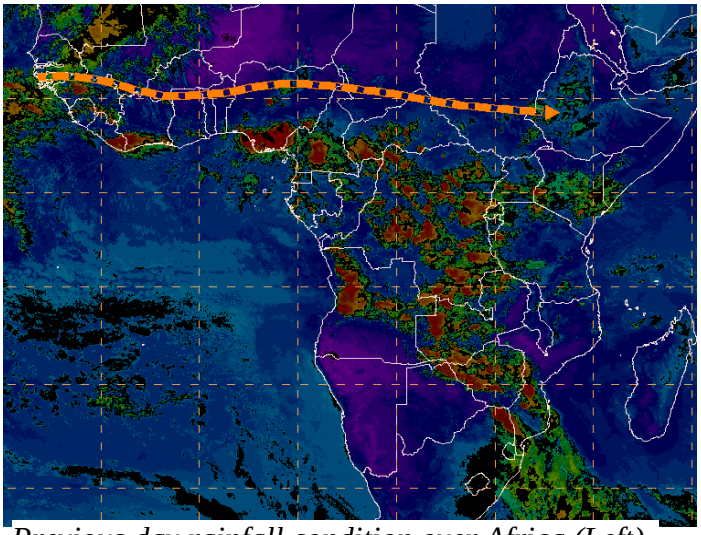
2.0. Previous and Current Day Weather Discussion over Africa (09 November 2010 – 10 November 2010)

2.1. Weather assessment for the previous day (09 November 2010):
During the previous day, locally moderate rainfall was observed over Liberia, Central Africa Republic, Liberia and parts of Sierra Leone.

2.2. Weather assessment for the current day (10 November 2010): Intense clouds are observed over DRC, Angola, Central Africa Republic, Nigeria, Botswana, and Zimbabwe.



IR Satellite Image, Valid 1700Z, November 10, 2010 and position of ITD (based on 1200Z Surface Analysis)



Previous day rainfall condition over Africa (Left) based on the NCEP CPCE/RFE and current day cloud cover (top) based on IR Satellite image

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